

**§ 95.627 FRS unit channel frequencies.**

(a) The FRS unit channel frequencies are:

| Channel No. | (MHz)    |
|-------------|----------|
| 1 .....     | 462.5625 |
| 2 .....     | 462.5875 |
| 3 .....     | 462.6125 |
| 4 .....     | 462.6375 |
| 5 .....     | 462.6625 |
| 6 .....     | 462.6875 |
| 7 .....     | 462.7125 |
| 8 .....     | 467.5625 |
| 9 .....     | 467.5875 |
| 10 .....    | 467.6125 |
| 11 .....    | 467.6375 |
| 12 .....    | 467.6625 |
| 13 .....    | 467.6875 |
| 14 .....    | 467.7125 |

(b) Each FRS unit must be maintained within a frequency tolerance of 0.00025%.

[61 FR 28769, June 6, 1996]

**§ 95.628 MICS transmitter.**

(a) *Frequency monitoring.* Medical implant programmer/control transmitters must incorporate a mechanism for monitoring the channel or channels that the MICS system devices intend to occupy. The monitoring system antenna shall be the antenna normally used by the programmer/control transmitter for a communications session. Before a medical implant programmer/control transmitter initiates a MICS communications session, the following access criteria must be met:

(1) The monitoring system bandwidth measured at its 20 dB down points must be equal to or greater than the emission bandwidth of the intended transmission.

(2) Within 5 seconds prior to initiating a communications session, circuitry associated with a medical implant programmer/control transmitter must monitor the channel or channels the MICS system devices intend to occupy for a minimum of 10 milliseconds per channel.

(3) Based on use of an isotropic monitoring system antenna, the monitoring threshold power level must not be more than  $10\log B(\text{Hz}) - 150 \text{ (dBm/Hz)} + G(\text{dBi})$  where B is the emission bandwidth of the MICS communication session transmitter having the widest emission and G is the medical implant programmer/control transmitter moni-

toring system antenna gain relative to an isotropic antenna. For purposes of showing compliance with the above provision, the above calculated threshold power level must be increased or decreased by an amount equal to the monitoring system antenna gain above or below the gain of an isotropic antenna, respectively.

(4) If no signal in a MICS channel above the monitoring threshold power level is detected, the medical implant programmer/control transmitter may initiate a MICS communications session involving transmissions to and from a medical implant device on that channel. The MICS communications session may continue as long as any silent period between consecutive data transmission bursts does not exceed 5 seconds. If a channel meeting the criteria in paragraph (a)(3) of this section is unavailable, the channel with the lowest ambient power level may be accessed.

(5) When a channel is selected prior to a MICS communications session, it is permissible to select an alternate channel for use if communications is interrupted, provided that the alternate channel selected is the next best choice using the above criteria. The alternate channel may be accessed in the event a communications session is interrupted by interference. The following criteria must be met:

(i) Before transmitting on the alternate channel, the channel must be monitored for a period of at least 10 milliseconds.

(ii) The detected power level during this 10 millisecond or greater monitoring period must be no higher than 6 dB above the power level detected when the channel was chosen as the alternate channel.

(iii) In the event that this alternate channel provision is not used by the MICS system or if the criteria in (i) and (ii) are not met, a channel must be selected using the access criteria specified in paragraphs (a)(1) through (a)(4) of this section.

(6) As used in this section, the following definitions apply:

(i) *Emission bandwidth*—Measured as the width of the signal between the points on either side of carrier center frequency that are 20 dB down relative

to the maximum level of the modulated carrier. Compliance will be determined using instrumentation employing a peak detector function and a resolution bandwidth approximately equal to 1% of the emission bandwidth of the device under test.

(ii) *MICS channel*—Any continuous segment of spectrum that is equal to the emission bandwidth of the device with the largest bandwidth that is to participate in a MICS communications session. (Note: The rules do not specify a channeling scheme for use by MICS systems.)

(iii) *MICS communications session*—A collection of transmissions, that may or may not be continuous, between MICS system devices.

(b) MICS communications sessions initiated by a medical implant event are not required to use the access criteria set forth in paragraph (a) of this section.

(c) Stations may operate on any of the frequencies in the band 402–405 MHz, provided that the out-of-band emissions are attenuated in accordance with § 95.635.

(d) The authorized bandwidth of the emission from a MICS station shall not exceed 300 kHz, and no communications session involving MICS stations shall use more than a total of 300 kHz of bandwidth during such a session. Note: This provision does not preclude full duplex or half duplex communications provided that the total amount of bandwidth utilized by all of the MICS channels employed in such a MICS communications session does not exceed 300 kHz.

(e) Each transmitter in the MICS service must maintain a frequency stability of  $\pm 100$  ppm of the operating frequency over the range:

(1) 25°C to 45°C in the case of medical implant transmitters; and

(2) 0°C to 55°C in the case of medical implant programmer/control transmitters.

(f) The provisions of this section shall not be used to extend the range of spectrum occupied over space or time for the purpose denying fair access to spectrum for other MICS systems.

[64 FR 69930, Dec. 15, 1999]

#### § 95.629 LPRS transmitter frequencies.

(a) LPRS transmitters may operate on any frequency listed in paragraphs (b), (c), and (d) of this section. Channels 19, 20, 50, and 151–160 are available exclusively for law enforcement tracking purposes. AMTS transmissions are limited to the 216.750–217.000 MHz band for low power point-to-point network control communications by AMTS coast stations. Other AMTS transmissions in the 216–217 MHz band are prohibited.

(b) *Standard band channels*. (1) The following table indicates standard band frequencies. The channel bandwidth is 25 kHz.

| Channel No. | Center frequency (MHz) |
|-------------|------------------------|
| 1 .....     | 216.0125               |
| 2 .....     | 216.0375               |
| 3 .....     | 216.0625               |
| 4 .....     | 216.0875               |
| 5 .....     | 216.1125               |
| 6 .....     | 216.1375               |
| 7 .....     | 216.1625               |
| 8 .....     | 216.1875               |
| 9 .....     | 216.2125               |
| 10 .....    | 216.2375               |
| 11 .....    | 216.2625               |
| 12 .....    | 216.2875               |
| 13 .....    | 216.3125               |
| 14 .....    | 216.3375               |
| 15 .....    | 216.3625               |
| 16 .....    | 216.3875               |
| 17 .....    | 216.4125               |
| 18 .....    | 216.4375               |
| 19 .....    | 216.4625               |
| 20 .....    | 216.4875               |
| 21 .....    | 216.5125               |
| 22 .....    | 216.5375               |
| 23 .....    | 216.5625               |
| 24 .....    | 216.5875               |
| 25 .....    | 216.6125               |
| 26 .....    | 216.6375               |
| 27 .....    | 216.6625               |
| 28 .....    | 216.6875               |
| 29 .....    | 216.7125               |
| 30 .....    | 216.7375               |
| 31 .....    | 216.7625               |
| 32 .....    | 216.7875               |
| 33 .....    | 216.8125               |
| 34 .....    | 216.8375               |
| 35 .....    | 216.8625               |
| 36 .....    | 216.8875               |
| 37 .....    | 216.9125               |
| 38 .....    | 216.9375               |
| 39 .....    | 216.9625               |
| 40 .....    | 216.9875               |

(2) LPRS transmitters operating on standard band channels must be maintained within a frequency stability of 50 parts per million.